

## INLAND WATERWAYS GREAT FACTOR IN DEMOCRACY'S FIGHT



GENERAL WILLIAM M. BLACK, CHIEF OF U.S. ENGINEERS

By ROBERT C. SKERRETT.

WE are face to face with a national peril. We must do our part to win the war; for otherwise we cannot live as a nation—democracy would be doomed. Our greatest problem is that of transportation.

Such is the opinion of no less an authority than Major-Gen. William M. Black, Chief of Engineers, United States Army, and chairman of the recently created Committee on Inland Water Transportation of the Council of National Defense. Gen. Black made this statement last week when addressing a conference at the Chamber of Commerce of the State of New York, where were gathered representatives from all over the Empire State to consider ways to prompt action in utilizing the traffic arteries existing in the form of canals and other water routes within the confines of the Commonwealth. Continuing Gen. Black said: "It is scarcely necessary to tell you men of business what transportation means to the commercial life of the country; and steps must be taken, and those promptly, if we expect to make the most of our national strength and play the part cut out for us over on the other side. The time for talk has gone; action now is imperative."

For years Americans have pointed with pride to the network of railways in this country, and, considered superficially, it appeared that there was ample warrant for this self-satisfaction. Compared with the combined railways of Europe America's lines outstrip them by more than 48,000 miles; to be specific, there is a total of 255,318 miles of railroad in the United States as against Europe's commercial system of 217,000 miles. On the other hand there has been a failure to make a corresponding effort to improve inland water routes here and to use them commensurately. In Europe water traffic and the associate facilities have grown well nigh to a point where the expansion of land carriage, and in certain countries, particularly in Germany, coordination has been compassed to an amazing degree between water and rail haulage. Of the situation in the United States Gen. Black says:

**Limit to Rail Service.**  
"We have not attained a maximum of coordination among our railroads. In truth, our railroads have fallen down under the early pressure of war, and we have not yet begun to fight or to feel the full tide of the demands of armed conflict."

"Certain raw materials needed in vast quantities and other commodities required in immense bulk cannot be moved from their sources to points of extensive utilization. Just think of it, with our mines capable of yielding many millions of tons of fuel—now so indispensable to comfort and to industrial activity—our rail lines cannot supply more than 40 per cent. of the coal needed to harness the coal we should have available."

"True, there is a limit to what the railroads on their part can fairly be expected to do. The cars are only in the hands of roads moving them something like 67 per cent. of the time. Twenty-five per cent. of their service life is that spent in the hands of the shippers, and the remaining element of time is the enforced idleness at crowded terminals. It is the congestion there that cramps movement to a marked degree, not only of arriving freight, but of the backward tide of traffic, and, incidentally, slows up the entire chain of transshipment and forwarding."

"We cannot, therefore, add to the existing burdens of the railways. We must seek relief in other directions. Every student of the subject knows what delays in freight have already meant to our merchants; and severe stress or greater demands are bound to come. The railroads, to-day, are forced to curtail the carriage of their own much needed supplies, and the problems of upkeep, repair and even expansion must be given heed."

"How, then, can the crisis be met and peril avoided? We must lessen the strain upon the railroads by increasing transportation facilities of all kinds along other channels. We have slighted our water routes in the past, and far flung and potentially serviceable as these are, water transportation is not playing its proper part now."

**Idle Boats in Port.**  
"Some of the reasons for this state of affairs are not easy to explain. When New England appealed to the Council of National Defense and said that many of its industries would be crippled, brought to a standstill, if coal were not forthcoming quickly, the authorities set about seeking relieving agencies. The Government officials were told that there were not enough bottoms in New York to help out materially in carrying coal thence by way of Long Island Sound to the hard-pressed Eastern States."

"What got together all the people engaged in carrying coal from the metropolitan district and found there were craft in plenty—many boats lying idle. So we went back to Washington and reported the facts; but conditions at the national capital are a bit bewildering; everybody is side-stepping direct responsibility as far as possible. To put it in the language of a keen observer there: 'They are passing the buck in Washington so fast that you can't see the buck.'"

"The difficulties before us are not going to remove themselves. It is up to us to improve matters. We have got to turn our backs squarely upon the past and begin anew with a determination to make the most of every helpful waterway that will move freight and reduce to just that measure the tax upon the rail lines."

"It is surprising what adaptation reveals. Things are being done here now in the way of water carriage that would have been left untried but for the upset routine of our railways. The lower Mississippi has a minimum channel depth of eight feet and in a goodly part of the upper reaches a draft of four feet is the limit for boats. And yet a towing test was made in the latter part of July that showed what could be done in the face of navigational restrictions. I refer to a shipment of pig iron from Sheffield, Ala., to Peoria, Ill., via the Tennessee, Ohio, Mississippi and Illinois rivers, covering a total distance of about 651 miles."

"The shipment consisted of 1,200 tons, and was loaded upon three barges, towed by the steamer Enterprise. The run covered an interval of substantially twelve days, and the trip was made without accident and strictly according to schedule, except for a slight delay at one point, where there was an insufficient depth of water. The boats were lightened to the needful draft by transferring a part of their cargo to a fourth barge. Other interests have profited by this example to start a kindred movement in a safe and a helpful enterprise. There is no reason in the world why we should not be able to achieve quite as much as some of the European countries in utilizing their natural and their artificial inland water routes. In fact, we have these transportation channels ready for us; the demand for the service is a pressing one, and I am satisfied that the Government stands ready to help out in every reasonable way if private initiative will meet it half way."

**Waterways Should Be Used.**  
"The Germans have always sneered at us and have freely said that we could never be induced to act together as a nation. Shall we not show the enemy that we are capable along all lines of efficient action, organization and coordination?"

"To do this the men of New York State must show their willingness to embark again, as their forefathers did, in the creation of a numerous flotilla of water carriers. One-tenth of the nation's population lives within the

## General Black, Chief of Engineers, Tells How Fuller Use of Canals and Rivers May Relieve Transportation Congestion—Many More Barges Needed—How Existing Systems Tap Great Manufacturing Fields

Empire State; the people of the Commonwealth have built or modernized a system of canals costing something more than \$154,000,000; and the traffic network can be made to play a great part in winning ultimate victory."

"There are those that may be disposed to hesitate simply because they think the railroads after the war will be able to meet our normal requirements. This is a short sighted view of the problem. The Government will certainly see to it that the water routes shall not be throttled by rail competition hereafter; and once well established canal carriage, &c., will hold its own."

"Shippers have hesitated to pledge freight until boats were in sight or definitely promised for the carriage of their commodities. They naturally have waited for the coming of a satisfactory service and the assurance of attractive rates. In short, we are either to take a long step forward in improving the inland movement of the nation's freight or to lose a wonderful opportunity to back up our fighting men abroad and to make ourselves doubly strong and fit to meet the commercial demands of a world trade that the future will surely offer us."

Of course, present success and future efficiency will depend upon the building of economical water carriers. To this end the Government has been carrying on for some time a series of model tests in the experimental basin at Washington having for its end the determination of the best types of self-propelled boats or barges for service upon our interior waterways, both natural and artificial."

"We know now just what cross sections are most desirable for their cargo capacity, relation to their cargo capacity, speed of movement, the physical characteristics of the channels, and efficient driving or towing, as the case may be. That is to say, the tank trials have established the best forms and sizes for these boats and have likewise determined the minimum of propulsive energy needed to meet varying demands. The heat directly upon the prime question of cost of service."

The port of New York can maintain its commercial supremacy in North America only by utilizing to the full every waterway that can be turned to account. Just how big a handicap it labors under now can be grasped by an examination of the metropolitan waterfront.

Crowded freight cars, surcharged

plains and heavily laden barges and lighters are the visible evidences of congestion, but miles back along the railways, upon sidings and even upon the most needed trunk lines stand thousands and thousands of loaded cars. It takes many days to move commodities by rail from Newark to Jersey City and thence to transship or forward to Manhattan or Brooklyn. A water route to Newark makes it possible to accomplish the through journey in a few hours, and yet this line of least resistance is comparatively little used."

**Way to Relieve Railroads.**  
It has been pointed out that motor trucks could be profitably employed within a radius of twenty to thirty miles from the State's canal terminals. Indeed a merchant in Waterbury, finding it impossible to ship his steel products westward, finally delivered his goods in Buffalo by motor truck, thanks to the fine macadam roads along the way. As he described it, "Rail conditions were such that I saved money by sending the freight as I did."

This can easily be realized when it is recalled that one railroad alone issued 1,600 embargoes upon various sorts of freight. Under the circumstances it is evident that the State waterways must be made the most of, lest shippers find matters even worse in the months to come."

Gen. W. W. Wotherspoon, speaking at the recent conference, declared that "fully 20 per cent. of the freight moving across the State of New York will have to be carried by water even when it becomes practicable to run the rail lines efficiently at their maximum capacity. Or, to put it in other terms, the proper use of the barge canal will release half a million cars."

"What is the potential freight situation in the State? New York's far back as ten years ago 11,700,000 tons of coal were moved and used within the State. A short rail haul of 150 miles will bring from Pennsylvania's mines coal to one of the links of the barge canal system. The one thing needed to utilize this potential traffic is a suitable fleet of boats. While our own people beg for fuel and the supply is low thousands of tons are shipped daily by water to Montreal."

"As all of us know, the barge canal was primarily undertaken to move freight from the great lakes to the Atlantic seaboard; but I can see no reason why a great deal of the State's freight which is now moved by rail

should not logically be transported by water. "By a recent act of the State Legislature railroads are now required to prorate with water traffic, and thus to give the shipper the combined benefits of the twofold means of reaching the desired destination most economically. Even if the canal traffic should be only 2½ per cent. of the rail movement across the State the roads would be saved the carriage of 4,500,000 tons during the 225 days of open navigation annually; but this estimate of potential service is a low one, and the canal system can be counted upon to handle 20,000,000 tons of freight when sufficient up to date craft are provided."

**Barge Canal's Capacity.**  
The movement of freight from the great lakes last year amounted to 13,000,000 tons, and under favorable conditions the bulk of this takes its course across New York State by rail. A big part of this consists of grain, coal and iron ore. It commonly follows the line of least resistance, that is lowest rates."

Eight years ago of American grown grain 75 per cent. of that sent abroad went by way of Montreal, and only 25 per cent. was exported via the port of New York. That was because discriminatory railroad rates turned the tide of this traffic through Canada. A reversal of the movement was later effected when a change of rates was established and New York then handled 75 per cent. of the outgoing native grain."

This point is of present interest because, as Gen. Wotherspoon explained, the shipper can now get satisfactory rail and water rates through to destination, and the barge canal is physically "susceptible of furnishing the easiest and the quickest route for such shipments. For instance, normally the average rail time from Buffalo to New York is eleven days for freight. The Barge Canal could render the same service in seven days, and the goods for export could be brought right alongside the ocean steamer no matter where she might be within the limits of the port of New York."

Lightage and the duplication of handling could thus be eliminated or reduced to a minimum. Inasmuch as there are 6,503 manufacturing concerns along the routes of the State barge canal system it is evident that this means of transportation could handle high class freight."

Gen. Black, in describing how the Government officials discovered that there were many barges lying idle that might have carried coal from the port of New York to New England did not explain how a large part of them were employed. As a matter of fact they were found it profitable to utilize the boats as floating store-

houses for grain. They could get more for this service than they could by using the vessels to move grain by way of the barge canal. In other words, the port here is in need of elevator facilities."

**Government Will Help.**  
But it is not a question merely of boats for the barge canal system and the fullest utilization of those waterways to relieve the demands upon the railroads. It is equally essential to make the most of inland routes extending from Boston to the metropolis, reaching southward, and via the Delaware and Maryland Canals and Chesapeake Bay, to Norfolk and Newport News, Va. It is possible thus to move coal from the Virginia and West Virginia mines, to expedite cargoes of lumber and to hasten the delivery of other products and foodstuffs. New York harbor, as a focal point of rail concentration, can be vastly relieved by calling into service these natural and artificial waterways."

Gen. Black assured his audience the other day that the Government would make it possible for barge builders to get their lumber, steel, &c., with all reasonable despatch by giving shipments of these materials priority. This means a big help in view of the general situation in the supply markets and the common difficulties encountered in having freight moved promptly to the desired destinations."

With boats available, car shortages could be measurably lessened. According to the Interstate Commerce Commission there was a shortage of 19,000 cars during November. Gen. Wotherspoon is confident that full use of the barge canal and the waterways of this State alone would release 40,000 cars monthly. Dock Commissioner A. A. Smith, in presiding at the recent conference said:

"Already the barge canal has demonstrated its strategic value, for only a short time ago some thirty submarine chasers, two mine sweepers and a number of navy launches, built in the West, reached the Atlantic coast under their own power by this route. It is now in order to show conclusively the commercial worth of the waterway."

Government figures disclose that a ton of freight can be moved a mile by water at less than one-eighth the cost of transportation by rail. This fact opens up a fruitful field for enterprise and a magnificent opportunity for that economy which is so persistently urged."

never been under the slightest suspicion by the authorities, but who has been the subject of persistent interest. He told him that he "knew for a fact" that this man had been arrested, when Mr. Knox knew most certainly that he had not been touched.

Phonies, large offices, hotels, part of all kinds where people gather in large numbers, are hotbeds for false reports. Any sudden disappearance is taken as evidence that the missing person has been discovered to be in league with the German Government. Foolish requests deluge all the Federal offices. Persons ask to have German names interned because of personal quarrels with them. Two Germans converse in whispers in a public place and a spy plot is immediately suspected and reported to the Government operatives; yet what is more natural than that Teutons speaking only a hostile tongue should be suspicious of each other?

"I followed a German last night," a man reported recently to Marshal McCarthey, "and I found out where he lived. He looked around suspiciously several times, and I think that he must have reason to fear arrest. I'll get you his address and you can intercept him right away."

"Don't you suppose any one would look at you suspiciously if he found you following him?" the Marshal asked.

So the public officials express gratitude for much information of persons and places, vague and often false complaints, however, are more of a hindrance than a help to the Government's spy hunters.

## U. S. SPY HUNTS REVEAL MANY WILD EXAGGERATIONS ABOUT PLOTS

Thumping Radiators Reported as Secret Wireless and Hoboes' Retreat Is Rendezvous for Spies

THE Christmas number of THE SUN contained an article in which the secret workings of the German spy system were dealt with and some of the methods adopted by the Federal authorities for the purpose of combating the menace were explained.

There is another phase of the incessant hunt for the dangerous enemy alien besides that which finds its way into the news columns. Not in seizing plotters alone does the Government operative spend his time, but many an hour and many a day must be wasted in investigating rumors that eventually prove to be without foundation. Some of the matters which the Secret Service and the Department of Justice are called upon to inquire into are ridiculous, and even in these grave times provide humor for the men engaged in the search for hostile spies.

It must needs be that times of general apprehension produce many false alarms. Hundreds of people daily pour suspicions into the ears of the aids of Superintendent William M. Olney of the local bureau of investigation of the Department of Justice or those of the members of United States Attorney Francis G. Caffery's staff. Daily Thomas D. McCarthy, United States Marshal for the Southern District of New York, finds a line of men and women waiting at his office to report to him cases which they believe merit immediate action and to ask for the internment of certain Teutons.

Anonymous letters suggesting that this or that person be seized as a dangerous alien enemy have flooded all of

certain that from some flat above him a Teuton spy was sending messages of great moment to his Kaiser.

So innocent was the man and so positive that a Government operative was immediately detailed to visit his apartment and await the suspicious sounds which the flat dweller said occurred generally in the early morning.

The Government agent reached the flat about daybreak and took up his post where the complainant said the spy code could best be heard. He noticed that the house was extremely chilly.

Presently the strange sounds came. There was no doubt but that they resembled the workings of some periscope. The flat dweller was in a high state of excitement.

"Listen," he whispered, "it's the Morse code."

But the Department of Justice agent was giving much of his attention to a rapidly increasing warmth in the atmosphere. He felt of the steam radiator already half heated and said to the flat dweller:

"I judge that your janitor usually jacks up his fires at about this time. Hereafter if the noises in your steam pipes bother you you had better send for a plumber."

According to Supt. Olney the most extravagant assertion was made by a citizen who reported that a German of his acquaintance was carrying about with him a "vest pocket wireless" of ancient power to send communications to Berlin. This wonderful instrument, the citizen told Mr. Olney, was so small that its possessor was able to carry it about in a watch case, and yet it was supposed to possess the power of the whole Bayville plant.

Several partly demented men and women have reported to the officials that secret wireless instruments in

their neighborhoods were keeping them awake at night. Every strange and unaccountable sound has been interpreted by them as an indication that they were surrounded by hostile spies.

A woman mentally unbalanced told Mr. Knox that her delicate dealer was in the habit of poisoning his goods whenever a German disaster was announced. She declared that she had been made ill several times by eating food purchased in his shop.

A report that caused the officials to roar with laughter was made very recently following the seizure by the Government of the offices and building of the Hamburg-American Line at 45 Broadway. Marshal McCarthy, who supervised the breaking over of the offices, was called on the telephone at his office by a man who refused to give his name but who asked if the Federal investigators had found any large metal steins on the roof of the steamship headquarters.

When answered in the negative he said, "Just as I thought; they've had them removed." He proceeded to explain that the heads of the Hamburg-American Line last spring had been confident that Germany would launch early aerial attacks at New York and other American cities. Fearing lest the line officials had caused a large number of great metal beer steins, which had previously been used as ornaments in their offices, to be placed on the roof. It was expected, he declared, that a Teuton airman, seeing these, would recognize their significance and spare the buildings.

This story gained wide circulation among persons in the neighborhood of the Hamburg-American Line Building. It even found a few believers among a class that is ready to accept anything attributed to German agents as possible.

A subject around which many of these wild rumors circulate is the secret gun base, that concrete foundation which the Teuton agent is said to have laid here for use in mounting big siege guns should the German plan triumph and the German armies be able to obtain a foothold on American soil.

The invasion of Belgium brought forth many accounts of such foundations laid years in advance by the apostles of Kultur for their instructions of destruction, and readers of these accounts have in many instances been ready to witness the duplication of this scheming in every strange cellar flooring that they might discover. More than 100 reports by letter, telephone and in person of these supposed gun bases have been received by Federal agents here since last April.

In every case the matter has been investigated, and according to Mr. Knox, has been thoroughly explained. Federal officers have called upon complainants who have taken them into their cellars, pounded upon the floor with clubs and called their attention to the "solid sound." They have been shown every manner of ruin and uncompleted structure. Generally, they say, the supposed base proves to be the remnant of some structure long torn down or burned.

In popular fancy this particular rumor is the spy rendezvous story which is continually being related to the official listeners by excited and breathless persons.

"There is a vacant house in my neighborhood," the visitor at the Federal office will tell his informer. "Frequently I hear sounds as I pass it. I have seen strange men lurking about it, and I know that they gather there at times to discuss plots."

"The next time you know them to gather there call the police," the Federal official will tell his informer.

A few days later the police enter an examination of the place, and the supposed spies' nest and force one of its doors. They discover a few ragged tramps enjoying a siesta on the hard

floors. Such affairs as this have occurred frequently in the outlying districts where old deserted houses offer the weary vagabond a haven of rest.

An unsolved mystery invariably gives rise to a number of wild reports. When it was stated that German submarines had been informed in some unknown manner of the sailing of the first contingent of American troops a man of German birth who had taken out naturalization papers told a story at a public meeting which greatly excited his listeners. Several persons prevailed upon him to report the matter later to Joseph Baker, Superintendent Olney's chief aid. It was in substance as follows:

Newport, R. I., according to the man, was connected by cable with the German Empire, and it was in this way that the news of the departure of the first troop ships was transmitted. The merchant submarine Deutschland, sailing from New York, had taken the cable secretly on its last visit to this country.

The impossibility of a submarine accomplishing so enormous a task as the laying of a trans-Atlantic cable never occurred to the German American or to the persons whom he stirred with his tale.

As wild a case as Government agents were ever sent on took place two months ago, when an automobile full of Federal officers went to the American Museum of Natural History for the purpose of seizing a lecturer who was reported to be making seditious utterances, in the course of lectures which he was delivering under the auspices of the Board of Education.

A Government stenographer took a seat near the front of the public lecture hall in the museum building where she could take notes without being observed by a speaker. An official of the Police Department in plain clothes seated himself where he might aid the Federal authorities if resistance were offered.

Innumerable Reports Reach Government and Practically All Are Investigated Forthwith

As the audience gathered a well known Federal official remarked to another member of his party, "I can't believe the number of reports that are coming in. It is impossible."

Nevertheless the Government's agents decided to find out what there was to the report that they had received, and they scattered about in the large audience.

The appearance of the lecturer further dampened the ardor of the party. He did not look like the shouting, raving radical that the officials had been told of, but quite the opposite. He proceeded to deliver deep into subjects scientific and historical, with the calmness of the present international situation.

After forty-five minutes of such emanations, throughout which the Government stenographer missed not a word, the lecturer had at least one high Federal official sound asleep and several more giving evidences of drowsiness. The police official took his medicine and sat through the talk to the end, after which the entire official party left the museum in somewhat irritable frame of mind over the big arrest which had fallen through.

There have been many rumored arrests which never took place. German cafe and restaurant proprietors have been seen leaving their places with strange men, and their customers have inferred that they had been arrested. As surely as a Teuton business man has been missing from his office because of illness or for any other reason for an unusual length of time, the rumor has had him on Ellis Island.

Mr. Knox relates the case of a German in his own neighborhood who has